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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,847	06/04/2002	Frank Stanglmeier	101191/1958	1438
26646 7590 12/17/2003				
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004				
EXAMINER OLSEN, KAJ K				
ART UNIT PAPER NUMBER				
1753				

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,847

Applicant(s)

STANGLMEIER ET AL

Examiner

Kaj Olsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On pages 5 and 6 of the substitution specification, there is continual reference to "carbohydrates". What do carbohydrates have to do with exhaust gas sensing? The examiner suspects that this might have been a mistranslation of a German term for "hydrocarbons" from the original German disclosure.

Appropriate correction is required.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Oxidizable Gas Component Sensor and Method of Using the Sensor.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 24 is drawn to a method of determining a concentration of an oxidizable gas component, but the claim has no step or steps drawn to this determination. Applicant should amend the claim to specify a step requiring the determination of a concentration of an oxidizable gas component.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 12-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kato et al (USP 5,672,811).

8. These claims were anticipated by the teaching of Kato '811 as set forth in a previous office action (see office actions of 2/18 and 7/01/2003). Applicant has amended the claims by specifying that the device comprises no more than one measuring gas compartment and that the circuit "is configured to apply" a pumping voltage so that the lambda value of the measuring compartment is ≥ 1.3 . With respect to the no more than one measuring compartment, the embodiments of fig. 17 and 18 of Kato '811 show a sensor where the two separate measuring compartments of the earlier embodiments are consolidated into a single compartment (col. 22, line 9 through col. 23, line 16). Hence Kato '811 does teach the set forth single measuring compartment as set forth by the amended claims.

9. With respect to the other limitation requiring the circuit be configured to apply a voltage to get the set forth lambda value, this examiner is in agreement with the applicant that the set forth partial pressures given by Kato '811 do not read on the set forth lambda of at least 1.3. However, because claim 12 is drawn to structure (i.e. it's an apparatus), the prior art need only be capable of being configured to provide the set forth lambda value of at least 1.3 and need not

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actually disclose doing so. In this sense, it would appear that Kato '811 is inherently capable of providing that configuration. In particular, the oxygen partial pressure in the measurement chamber comes from the potential chosen for the electrochemical sensing cell (see for example col. 13, lines 25-40 and col. 23, line 51-57). If a potential is set to a small enough level, then the device can provide the set forth lambda range. Because Kato '811 discusses changing said potential value, it would appear that Kato '811 inherently could vary the potential utilized and could thereby provide the set forth lambda range. Alternatively, in the event that Kato '811 could not vary the potential utilized (e.g. each setting by Kato '811 is a hard wired potential setting having no variability), because Kato '811 discloses changing the potential depending on the desired partial pressure, one possessing ordinary skill in the art would have been motivated to make that potential setting variable so that one sensor would be able to provide all the desired potential settings. A variable potential setting would thereby be "configured to apply" the necessary potentials.

10. With respect to the remaining claims, these issues have been addressed in the previous office actions and will not be reiterated here.

Allowable Subject Matter

11. Claim 24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose nor render obvious a method for determining the concentration of an oxidizable gas component comprising all the limitations of the claim with particular attention to

the limitation requiring the pump voltage be applied such that the partial pressure of oxygen in the measuring gas compartment corresponds to a lambda value of ≥ 1.3 .

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kato '525 and Makino disclose alternate sensors for the determination of oxidizable gas components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number for after-final communications is (703) 305-5408.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Kaj Olsen', with a long horizontal flourish extending to the right.

Kaj K. Olsen
Patent Examiner

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December 10, 2003